EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Larry S. Nixon (Reg. No. 25,640) on June 2, 2010.

The examiner would like to state that examiner's interpretation of a non-transitory computer-readable storage medium is A CD-ROM reader 308 receives processing instructions and data from an external CD-ROM medium 311 according to the specification (page 7, lines 6-8)

3. Claims 1-22. (Cancelled)

4. Claim 23. (Previously Presented) Apparatus for sharing data over a network having a plurality of network-connected terminals, each terminal comprising

a visual display;

a processor;

storage; and

memory;

wherein said memory in each terminal includes:

a first data object that contains data and dynamic elements comprising

attributes and methods, said first data object being duplicated to each of said

other network connected   terminals, and a plurality of second data objects, each

of which contains data and dynamic elements comprising attributes and

methods, each of which second data objects is a duplicate of a data object on

another terminal, such that there exists within the network a plurality of sets of

duplicated data objects; and

computer program instructions for normal operations comprising:

maintaining an environment for a networked game and displaying said

environment on said visual display;

for at least one of said data objects in said memory, generating an entity

using said methods and attributes in said data object and displaying it in said

environment according to said data in said data object;

periodically providing over said network an update of the data contained in

said first data object;

updating the data contained in said second objects in response to

receiving updates over said network, wherein for each of said updates a portion

of the data in one of said second objects is replaced with data contained in the

update without changing the dynamic elements in said second object; and

for each set of duplicated data objects;

establishing one of said data objects as a master data object, wherein said

master data object is responsible for maintaining consistency between the data in

the data objects in said set, and

when the terminal that maintains said master data object becomes

unavailable, determining which of said data objects in the set should be master

data object and establishing said data object as master data object.

5.   Claim 24. (Previously Presented) Apparatus according to claim 23,

wherein said

instructions to maintain data consistency between duplicated objects monitor

CPU usage and network bandwidth utilization.

6.   Claim 25. (Previously Presented) Apparatus according to claim 24,

wherein a terminal becomes unavailable when its CPU usage exceeds a

threshold.

7.   Claim 26. (Previously Presented) Apparatus according to claim 24,

wherein a terminal becomes unavailable when its bandwidth utilization exceeds a

threshold.

8.   Claim 27. (Previously Presented) Apparatus according to claim 23,

wherein a terminal becomes unavailable when it is switched off.

9.   Claim 28. (Previously Presented) Apparatus according to claim 23,

wherein a terminal becomes unavailable when its connection to the network is

lost.

10.   Claim 29. (Previously Presented) A method of accessing data over a

network of terminals, wherein each of said terminals:

maintains a first data object that contains data and dynamic elements

comprising attributes and methods, said first data object being duplicated over

the network to each of said other terminals, and a plurality of second data

objects, each of which contains data and dynamic elements comprising attributes and methods, and each of which second data objects is a duplicate of a data object on another terminal, such that there exists within the network a plurality of sets of duplicated data objects,

maintains an environment for a networked game and displays it on said visual display, for at least one of said data objects in said memory, generates an entity using said methods and attributes in said data object and displays it in said environment according to said data in said data object,

periodically provides over said network an update of the data contained in said first data object, and

updates the data contained in said second objects in response to receiving updates over said network, wherein for each of said updates a portion of the data in one of said second objects is replaced with data contained in the update without changing the dynamic elements in said second object;
said method comprising:

for each set of duplicated data objects:

establishing one of said data objects as a master data object, wherein said master data object maintains consistency between the data in the data objects in said set; and

when the terminal that maintains said master data object becomes unavailable, determining which of said data objects in the set should be master data object and establishing said data object as master data object.

11. Claim 30. (Previously Presented) A method according to claim 29, wherein each of said terminals monitors its own CPU usage and network bandwidth utilization.

12. Claim 31. (Previously Presented) A method according to claim 30, wherein a terminal becomes unavailable when its CPU usage exceeds a threshold.

13. Claim 32. (Previously Presented) A method according to claim 30, wherein a terminal becomes unavailable when its bandwidth utilization exceeds a threshold.

14. Claim 33. (Previously Presented) A method according to claim 29, wherein a terminal becomes unavailable when it is switched off.

15. Claim 34. (Previously Presented) A method according to claim 29, wherein a terminal becomes unavailable when its connection to the network is lost.

16. Claim 35. (Currently Amended) A terminal for sharing data over a network having a plurality of network-connected terminals, comprising

a visual display;

a processor;

storage; and

memory;

wherein said memory includes:

a first data object that contains data and dynamic elements comprising attributes and methods, said first data object being duplicated to each of said

other network connected terminals, and a plurality of second data objects, each

of which contains data and dynamic elements comprising attributes and

methods, and each of which second data objects is a duplicate of a data object

on another terminal, such that there exists within the network a plurality of sets of

duplicated data objects; and

computer program instructions for normal operations comprising:

maintaining an environment for a networked game and displaying said

environment on said visual display;

for at least one of said data objects in said memory, generating an entity

using said methods and attributes in said data object and displaying it in said

environment according to said data in said data object;

periodically providing over said network an update of the data contained in

said first data object;

updating the data contained in said second objects in response to

receiving updates over said network, wherein for each of said updates a portion

of the data in one of said second objects is replaced with data contained in the

update without changing the dynamic elements in said second object; and

for each set of duplicated data objects:

storing information as to which of said data objects is a master data object

that is responsible for maintaining consistency between the data in the data

objects in said set,

wherein any of said duplicated data objects in the set may be a master

data object, and when the terminal that maintains said master data object

becomes unavailable, determining which of said data objects in the set should be master data object and establishing said data object as master data object.

17. Claim 36. (Currently Amended) A <u>non-transitory</u> computer-readable storage medium having computer-readable instructions executable by a computer during normal ongoing operations such that, when executing said instructions, a computer will:

maintain a first data object in memory that is duplicated to computers connected over a network, and maintain a plurality of second data objects in memory, each of which is a duplicate of a data object on another terminal, such that there exists within the network a set of duplicated data objects, each of said data objects containing data and dynamic elements comprising attributes and methods;

maintain an environment for a networked game and displays it on said visual display,

for at least one of said data objects in said memory, generate an entity using said methods and attributes in said data object and displays it in said environment according to said data in said data object,

periodically provide over said network an update of the data contained in said data object;

update the data contained in said second objects in response to receiving updates over said network, wherein for each of said updates a portion of the data in one of said second objects is replaced with data contained in the update without changing the dynamic elements in said second object; and

for each set of duplicated data objects:

store information as to which of said data objects is a master data object

that is responsible for maintaining consistency between the data in the data

objects in said set, wherein any of said duplicated data objects in the set may be

a master data object, and

when the terminal that maintains said master data object becomes

unavailable, determine which of said data objects in the set should be master

data object and establish said data object as master data object wherein at least

one of the master data objects is maintained by a different terminal from that

maintaining at least one of the other master data objects.

18. Claim 37. (Currently Amended) A non-transitory computer-readable

storage medium according to claim 36, wherein the role of master data object is

transferred to a different computer when the computer that maintains said master

data object becomes unavailable.

19. Claim 38. (Currently Amended) A non-transitory computer-readable

storage medium according to claim 36, wherein each of said computers monitors

its own CPU usage and network bandwidth utilization.

20. Claim 39. (Currently Amended) A non-transitory computer-readable

storage medium according to claim 38, wherein a computer becomes unavailable

when its CPU usage exceeds a threshold.

21. Claim 40. (Currently Amended) A non-transitory computer-readable

storage medium according to claim 38, wherein a computer becomes unavailable

when its bandwidth utilization exceeds a threshold.

22. Claim 41. (Currently Amended) A non-transitory computer-readable storage medium according to claim 37, wherein a computer becomes unavailable when it is switched off.

23. Claim 42. (Currently Amended) A non-transitory computer-readable storage medium according to claim 37, wherein a computer becomes unavailable when its connection to the network is lost.

Reasons for Allowance

24. The following is an examiner's statement of reasons for allowance:

In interpreting the claims, in light of the specification and the applicant's arguments filed on 03/01/2010, the Examiner finds the claimed invention to be patentably distinct from the prior art of record.

25. Hacherl (US 6,324,571 B1) teaches Briefly, the present invention provides a system for switching exclusive authority to perform a particular system-wide task between machines in a network. While multiple servers in the network may be physically capable of performing a particular system-wide task, at any one time only one server may be designated with authority to actually perform the task. This authority may, however, be "floated" among various servers in the network. At any particular moment, the machine which currently holds authority to perform a particular task is referred to as the master server role owner and is identified in an attribute (called, for example, "role owner") that is stored on each server in the network. Switching authority to perform a particular

network-wide task requires updating the attribute on each of the servers in the

network. **(Hacherl, Column 2, lines 1-17).**

26. However, the prior art of records fails to teach or suggest a first data

object that contains data and dynamic elements comprising attributes and

methods, said first data object being duplicated to each of said other network

connected   terminals, and a plurality of second data objects, each of which

contains data and dynamic elements comprising attributes and methods, each of

which second data objects is a duplicate of a data object on another terminal,

such that there exists within the network a plurality of sets of duplicated data

objects; and

> computer program instructions for normal operations comprising:

> maintaining an environment for a networked game and displaying said

> environment on said visual display;

> for at least one of said data objects in said memory, generating an entity

using said methods and attributes in said data object and displaying it in said

environment according to said data in said data object;

> periodically providing over said network an update of the data contained in

said first data object;

> updating the data contained in said second objects in response to

receiving updates over said network, wherein for each of said updates a portion

of the data in one of said second objects is replaced with data contained in the

update without changing the dynamic elements in said second object; and

> for each set of duplicated data objects;

establishing one of said data objects as a master data object, wherein said

master data object is responsible for maintaining consistency between the

data in the data objects in said set, and

when the terminal that maintains said master data object becomes

unavailable, determining which of said data objects in the set should be master

data object and establishing said data object as master data object as set forth in

the independent claims 23, 29,35 and 36. Claims 24-28, 30-34 and 37-42 are

allowed because the combination of the other limitation listed above

27.   The examiner finds the Applicant's arguments on pages 6 of the

Remarks filed on 03/01/2010 to be persuasive. The applicant argued that

Hacherl does not disclose a first data object that is duplicated to each of the

other terminals, and second data objects each of which is a duplicate of a data

object on another terminal, as required by the applicants' independent claims.

The Examiner asserts that Hacherl discloses the claimed data objects because

the claimed definition (a data object contains data and dynamic elements

comprising attributes and methods), Hacherl's program modules (see 3:40-44)

read onto these data objects. This is incorrect as explained above. Furthermore,

Hacherl's program modules are not duplicated to other network terminals, as is

clearly required by the applicants' claims. (**See Remarks, page 6**).

28.   Any comments considered necessary by applicant must be submitted

no later than the payment of the issue fee and, to avoid processing delays,

should preferably accompany the issue fee. Such submissions should be clearly
labeled "Comments on Examiner's Amendment."

Conclusion

29.   Any inquiry concerning this communication or earlier communications
from the examiner should be directed to FARRUKH HUSSAIN whose telephone
number is (571)270-5652. The examiner can normally be reached on Monday-
Thursday, Alt. Friday, 7:30 A.M-5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, William Vaughn can be reached on 571-272-3922. The
fax phone number for the organization where this application or proceeding is
assigned is 571-273-8300.

30.   Information regarding the status of an application may be obtained
from the Patent Application Information Retrieval (PAIR) system. Status
information for published applications may be obtained from either Private PAIR
or Public PAIR. Status information for unpublished applications is available
through Private PAIR only. For more information about the PAIR system, see
http://pair-direct.uspto.gov. Should you have questions on access to the Private
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(toll-free). If you would like assistance from a USPTO Customer Service
Representative or access to the automated information system, call 800-786-
9199 (IN USA OR CANADA) or 571-272-1000.

/F. H./
Examiner, Art Unit 2444
06/04/2010

/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444